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CLAIMS

WHAT IS CLAIMED IS:

1. An electronic communications system with at least one user, comprising:

a gatekeeper in electronic communication with a packetswitched communications network, wherein said gatekeeper is capable of associating a user's subscriber identifier with a dynamic Internet Protocol address for the user; and

a network node in electronic communication with a circuitswitched communications network and the gatekeeper, wherein said network node is capable of transmitting data over both the circuitswitched and the packet-switched network.

2. The system of Claim 1, further comprising:

a subscriber database, wherein said subscriber database comprises data that matches at least one user's subscriber identifier with a dynamic Internet Protocol address for the user.

3. The system of Claim 1, further comprising:

client software, wherein said client software is adapted to communicate with said gatekeeper over the packet-switched network.

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- 4. The system of Claim 3, wherein said client software is adapted to communicate the dynamic Internet Protocol address and subscriber identifier of a user to the gatekeeper.
- 5. The system of Claim 3, wherein said client software comprises a graphical user interface adapted to allow a user to reject an incoming call.
- 6. The system of Claim 3, wherein said client software comprises a graphical user interface including an auto-upgrade feature.
- 7. The system of Claim 3, wherein said client software comprises a graphical user interface including an inbox to retrieve incoming messages.
- 8. The system of Claim 7, wherein said inbox is adapted to allow a user automatically to call back a caller who is represented in said inbox, said user performing a single action to call back the caller.
- 9. The system of Claim 3, wherein said client software comprises a graphical user interface including a do not disturb feature.
- 10. The system of Claim 3, wherein said client software comprises a graphical user interface including an auto silence detection feature.

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- 11. The system of Claim 1, further comprising a media server.
- 12. The system of Claim 1, further comprising a message notification server.
- 13. The system of Claim 12, wherein said message notification server is adapted to notify a user that a facsimile message was received.
- 14. The system of Claim 12, wherein said message notification server is adapted to notify a user that a voice mail message was received.
- 15. The system of Claim 12, wherein said message notification server is adapted to notify a user that a missed call was received.
- 16. The system of Claim 1, wherein the circuit-switched communications network is the public switched telephone network.
 - 17. The system of Claim 16, wherein said subscriber identifier is a telephone number that corresponds to the local dialing practices of the public switched telephone network.

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- 18. The system of Claim 1, wherein the packet-switched communications network transmits data packets according to the Internet Protocol.
- 19. The system of Claim 1, wherein the packet-switched communications network is an intranet.
- 20. The system of Claim 1, wherein the packet-switched communications network is the Internet.
- 21. The system of Claim 1, wherein said network node comprises call scripting functionality.
- 22. The system of Claim 21, wherein said call scripting functionality comprises user-definable voice messages.
- 23. The system of Claim 22, wherein said messages comprise a voice mail announcement.
- 24. The system of Claim 22, wherein said call scripting functionality comprises user-definable call routing options.
 - 25. The system of Claim 1, wherein said gatekeeper is adapted to authenticate a user when said user logs into the system.
 - 26. The system of Claim 1, wherein said gatekeeper is adapted to authenticate a user when said user places an outbound call.

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- 27. The system of Claim 1, wherein said gatekeeper is adapted to authenticate a user on an IP device when said user receives an incoming call.
- 28. The system of Claim 1, wherein said gatekeeper is adapted to remove the association between the dynamic Internet Protocol address and the subscriber identifier of a user that has logged out of the packet-switched network.
- 29. The system of Claim 1, wherein said network node is adapted to re-route an incoming call placed to the user's subscriber identifier out over the circuit-switched network to a traditional telephone number according to the user's predefined call routing preferences.
 - 30. An electronic communications system, comprising:

a gatekeeper in electronic communication with a packetswitched communications network;

a network node in electronic communication with a circuitswitched communications network and the gatekeeper, wherein said network node is capable of transmitting data over both the circuitswitched and the packet-switched network, further wherein said network node is capable of determining whether said transmitted data represents a facsimile.

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- 31. The system of Claim 30, wherein said network node comprises means for detecting facsimile CNG tones.
- 32. The system of Claim 30, wherein said network node is adapted to distinguish between facsimile data and voice data.
- 33. The system of Claim 30, wherein said network node is adapted to wait for a period of time after receiving incoming data to determine whether said transmitted data represents a facsimile.
- 34. The system of Claim 33, wherein said period of time is approximately two seconds.
 - 35. An electronic communications system, comprising:

a gatekeeper in electronic communication with a packetswitched communications network;

a network node in electronic communication with a circuitswitched communications network and the gatekeeper, wherein said network node is capable of transmitting data over both the circuitswitched and the packet-switched network, further wherein said network node is adapted to accept a voice mail message; and

means for recording a voice mail message in a digital format.

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| | 36. | The | system | of Claim | 35, | wherein | said | means | for |
|--------------|---------|-------|---------|----------|-----|---------|------|-------|-----|
| recording is | the net | tworl | k node. | | | | | | |

- 37. The system of Claim 35, further comprising:
- a database capable of storing said voice mail message for later retrieval by a user.
 - 38. The system of Claim 37, wherein said later retrieval comprises the user accessing the system from a PSTN-based device.
 - 39. The system of Claim 37, wherein said later retrieval comprises the user accessing the system from an IP-based device.
 - 40. The system of Claim 35, further comprising:

a media server adapted to stream said voice mail message to a user.

- 41. The system of Claim 40, wherein said media server streams said voice mail message in a streaming audio format.
 - 42. The system of Claim 35, further comprising:

a notification device for signaling an intended caller when said voice mail message is received.

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43. The system of Claim 35, further comprising:

means for sending said voice mail message as an email message.

- 44. The system of Claim 39, wherein said IP device comprises client software utilizing a graphical user interface.
- 45. A method for transmitting data, comprising the steps of:

receiving a request to transfer data to a recipient, said request comprising a subscriber identifier for said recipient;

searching for a dynamic Internet Protocol address for said recipient associated with said subscriber identifier;

determining the appropriate communications channel to transmit the data based on the results of said searching step; and

transmitting the data to the recipient in response to said determining step.

46. The method of Claim 45, wherein said request is received from an IP device.

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| 47. | The method of Claim | 45, wherein | said request is |
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| received from a tel | ephonic device. | | |

- 48. The method of Claim 45, wherein said data comprises a voice call.
- 5 49. The method of Claim 45, wherein said data comprises a facsimile.
 - 50. The method of claim 45, further comprising the steps of:

receiving a subscriber identifier and dynamic Internet
Protocol address from client software running on an Internet Protocol
device used by the recipient; and

storing said subscriber identifier associated with said dynamic Internet Protocol address in a database.

- 51. The method of Claim 50, wherein said subscriber identifier and dynamic Internet Protocol address are received from the client software automatically in response to the recipient's activation of the software.
 - 52. The method of Claim 51, wherein said Internet Protocol device is communicatively connected to the Internet.

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- 53. The method of Claim 51, wherein said dynamic Internet Protocol address is assigned to the Internet Protocol device upon the recipient's logging into the Internet.
- 54. The method of Claim 50, wherein said determining step comprises:

accessing the database; and

looking up the dynamic Internet Protocol address of the recipient's Internet Protocol device in the database.

- 55. The method of Claim 45, wherein said step of transmitting the data to the recipient occurs exclusively over a packet-switched network in response to a found dynamic Internet Protocol address for the recipient in said searching step.
- 56. The method of Claim 55, wherein said packet-switched network is the Internet.
- 57. The method of Claim 54, wherein said step of transmitting the data to the recipient occurs over both a packet-switched communications network and a circuit-switched communications network in response to failing to locate the Internet Protocol address assigned to the recipient in said looking up step.

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- 58. The method of Claim 57, wherein said circuit-switched network is the public-switched telephone network.
- 59. The method of Claim 45, wherein said transmitting step further comprises the step of:

5 ringing the recipient on an Internet Protocol device assigned to the dynamic Internet Protocol address of the recipient.

60. The method of Claim 59, further comprising the step of:

receiving a response to a call acceptance query from client software running on the Internet Protocol device.

61. The method of Claim 60, further comprising the step of:

recording a voice mail message for said recipient in response to said recipient failing to accept the call acceptance query.

62. The method of Claim 61, further including the step of:

notifying the recipient that a voice mail message is waiting to be received.

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| | 63. | The method of Claim 60, further comprising the step |
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| of: | | |

routing said data out over a circuit-switched network in response to said recipient failing to accept the call acceptance query.

64. The method of Claim 60, further comprising the step of:

initiating a voice call with said recipient in response to said recipient accepting the call acceptance query.

- 65. The method of Claim 64, wherein said call is set up using a protocol selected from the group consisting of H.323, SIP, and MGCP.
- 66. The method of Claim 45, wherein said transmitting step further comprises the steps of:

determining whether said data represents a facsimile; and storing said facsimile in a database in response to determining that the data represents a facsimile.

67. The method of Claim 66, further including the step of: notifying the recipient that a facsimile has been received.

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- 68. The method of Claim 45, wherein said subscriber identifier is a PSTN-based telephone number.
- 69. The method of Claim 68, wherein said PSTN-based telephone number corresponds to the dialing practices of the local PSTN telephone exchange of the recipient.
- 70. A method for registering a dynamic Internet Protocol address to a subscriber, comprising the steps of:

assigning a subscriber identifier to the subscriber;

accepting the dynamic Internet Protocol address assigned to the subscriber in response to the subscriber's logging into a packetswitched network; and

registering the subscriber identifier to the dynamic Internet Protocol address in a database.

- 71. The method of Claim 60, wherein said assigning step comprises assigning a password to the subscriber.
- 72. The method of Claim 50, further comprising the step of:

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unregistering the dynamic Internet Protocol address from the subscriber identifier in the database in response to the subscriber's logging out of the packet-switched network.

73. An electronic communications system comprising:

5 means for communicatively connecting a packet-switched communications network to a circuit-switched communications network;

means for determining the dynamic Internet Protocol address for a system subscriber; and

means for registering the dynamic Internet Protocol address for the system subscriber to a subscriber identifier for the system subscriber.

74. The system of Claim 73, wherein said means for communicatively connecting is adapted to switch an incoming call to the circuit-switched network if no valid dynamic Internet Protocol address is registered to a called subscriber identifier.

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